Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition	)	GN Docket No. 12-353
Petition of the National Telecommunications Cooperative Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution	)	

COMMENTS OF ADTRAN, INC.

ADTRAN, Inc. ("ADTRAN") files these Comments in response to the Commission's Public Notice establishing a pleading cycle concerning two petitions that urge the Commission to alter its policies to respond to the ongoing technological transition of voice networks.[1] As AT&T and the National Telecommunications Cooperative Association ("NTCA") demonstrate, the present circuit-switched networks, using time-division multiplexed ("TDM") facilities, are evolving rapidly toward all Internet Protocol ("IP") networks. Unfortunately, many of the Commission's policies and regulations are based on the networks of old, not on the soon-to-be (and to some extent already here-and-now) world of all-IP networks. ADTRAN thus supports the requests of AT&T and NTCA for the Commission to initiate a comprehensive review of its regulations to take account of these significant changes.

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[1] *Public Notice*, "Pleading Cycle Established on AT&T and NTCA Petitions," GN Docket No. 12-353, DA 12-1999, released December 14, 2012.

ADTRAN, founded in 1986 and headquartered in Huntsville, Alabama, is a leading global manufacturer of networking and communications equipment, with an innovative portfolio of solutions for use in the last mile of today's telecommunications networks. ADTRAN's equipment is deployed by some of the world's largest service providers, as well as distributed enterprises and small and medium businesses. Importantly for purposes of this proceeding, ADTRAN solutions enable voice, data, video and Internet communications across copper, fiber and wireless network infrastructures. ADTRAN thus brings an expansive perspective to this issue.

Both the AT&T Petition and the NTCA Petition demonstrate the need for the Commission to be proactive, not reactive, to the evolution of the networks. Significant changes have occurred, and will continue to occur, in the provision of telecommunications services. What were once narrow-band, circuit-switched networks driven by and designed to accommodate voice phone calls are rapidly becoming IP-based, broadband networks capable of carrying a wide range of services, with voice as merely one application -- albeit a critical one. This transition is occurring but not necessarily for all providers at the same pace. A failure of the Commission to accurately assess and understand the nature of the transition for the various types of providers and possibly alter its regulations to account for those changes in a thoughtful way could distort competition and dampen investment, to the detriment of the public interest. Likewise, altering its regulations in a way that causes substantial disruption, unexpected expense, or operational burdens for carriers who have not yet substantially deployed such technology could also distort competition and dampen investment.

Many of the current Commission and state rules predate the changes in technology and advent of competition spurred on by the Telecommunications Act of 1996. As a result, the

regulations may impose unnecessary obligations that disproportionately affect incumbent carriers. The additional burdens and costs imposed on one set of competitors can retard their investment in new networks, which will slow deployment of broadband to all Americans.

The Commission has demonstrated an awareness of the evolution of the networks. Indeed, in the National Broadband Plan, the Commission discussed the need for a comprehensive proceeding to address the transition:

> As with earlier transitions, the transition from a circuit switched network will take a number of years. But to ensure that the transition does not dramatically disrupt communications or make it difficult to achieve certain public policy goals, the country should start considering the necessary elements of this transition in parallel with efforts to accelerate broadband deployment and adoption. As such, the FCC should start a proceeding on the transition that asks for comment on a number of questions, including whether the FCC should set a timeline for a transition and, if so, what the timeline should be, quality of service requirements and safeguarding emergency communications. This proceeding should consider questions of jurisdiction, regulatory structure and legacy voice-specific regulations, including interconnection, numbering and carrier of last resort obligations. It should consider the impact of the transition on employment in the communications industry, particularly given the historic role of the sector in providing high-skill, high-wage jobs. In the proceeding, the FCC should also look at whether there are requirements from other federal entities, such as tax requirements, that would affect the path of the transition.[2]

The Commission has also undertaken some initial, discrete steps with regard to the transition of the networks. Notably, the Commission designed the reform of the Universal Service Fund ("USF") and Intercarrier Compensation ("ICC") in recognition of, and with the intention to facilitate the transition to, all-IP networks.

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[2] *Connecting America: The National Broadband Plan* (http://www.broadband.gov/plan/) at p. 59 (footnotes omitted). *See also*, *Comment Sought on Transition from Circuit-Switched Network to All IP-Network—NBP Public Notice #5*, GN Docket Nos. 09-47, 09-51, 09-137, Public Notice, 24 FCC Rcd 14272 (WCB 2009).

Indeed, even more recently, the Chairman of the Commission announced the formation of the Technology Transitions Policy Task Force.[3] Thus, to a large extent the petitions of AT&T and NTCA amount to "preaching to the choir." The Commission ought not need much convincing of the critical importance of evaluating its rules in light of the evolution of the networks.

However, managing the regulatory aspects of this transition will not be a simple task. The evolution of the incumbent carriers' networks is occurring in the context of other far-reaching changes and important policies. The wireless industry has grown exponentially, and much of our nation's wireless infrastructure is now based on 4G and 3G digital broadband technologies leveraging fiber backhaul. Congress made clear in the Telecommunications Act of 1996 that regulatory-sanctioned monopolies were a thing of the past, and that the Commission must encourage competition through, among other things, interconnection and access to necessary facilities.[4] Many telecommunications providers are marketing "quadruple play" through service packages that offer subscribers voice, high-speed data, video and mobile services. The Commission is intending for the transformation of the intercarrier compensation and universal subsidy programs to foster explicitly the deployment of broadband services to more Americans. And the incumbent carriers' networks are becoming more robust with much greater capacity as fiber optic technologies are deployed farther into the networks. Finally, to complicate things even further, the Commission shares jurisdiction with the State and Tribal regulatory authorities.

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[3] *News Release,* "FCC Chairman Julius Genachowski Announces Formation of 'Technology Transitions Policy Task Force'," December 10, 2012.

[4] As the courts have made clear however, the Telecommunications Act of 1996 was not intended to support "synthetic competition." *United States Telecom Association v. FCC,* 290 F.3d 415, 424 (DC Cir 2002).

In light of the importance of the issue of the transition to all-IP networks and the complexity of the various "moving parts" that will affect, and be impacted by, such a fundamental change, ADTRAN supports the request of AT&T and NTCA for the Commission to institute a proceeding to conduct a comprehensive review of all regulations to determine what needs to be changed. Such a proceeding makes much more sense than trying to make piece-meal decisions on discrete issues that otherwise could arise.

For example, some of the current regulations presume market power, and may require a carrier to maintain its old circuit-switched network even after it deploys a new, all IP-based network (or at least requires the carrier to go through a time-consuming and costly "mother may I" proceeding with the regulators before the old network can be retired). Such requirements to retain uneconomic networks and/or cumbersome procedures before retiring them are likely to slow investment in new technologies where it would be inefficient for the incumbent carrier to be burdened with the cost of both networks.

An incumbent carrier could presumably file a request under Section 214 to terminate its TDM services in an area where it had deployed IP-based services. Or alternatively, a carrier might file a forbearance petition to alleviate the burden of maintaining dual networks. But such individual proceedings are not well-suited to addressing the multi-faceted implications of such a change to a network that may be used by both an incumbent and competitive providers – such as equal access obligations, unbundling of network elements, dialing parity, and copper retirement – all of which could significantly affect competition. Moreover, a series of individual proceedings would be ill-equipped to address the overarching issue of FCC preemption of inconsistent State regulatory requirements that could also be implicated.

In addition to the initiation of a comprehensive rulemaking, AT&T proposes that the Commission in the short term allow a select number of wire centers to serve as a laboratory for incumbent carriers to offer alternatives to the current regulations in order to facilitate the transition to all-IP networks. An incumbent carrier could propose the modifications the carrier would be making to its network in a wire center (or centers), along with the services it would offer in lieu of the legacy services. The Commission could then use the results of these "experiments" to evaluate various alternatives to decide which, if any, of the new offerings best accommodates the needs of the carrier's customers, the interconnection with and continued delivery of services by other providers, and the interests of competitors.[5]

ADTRAN supports this modest, interim trial proposed by AT&T while the comprehensive proceeding is underway. The information gained may prove to be very valuable, while the risk of any harm to customers or competitors would be limited. By allowing such experiments to proceed and designing them in response to a variety of stakeholder interests, the Commission would be making its decision using information from actual "market trials," rather than basing its new policies merely on the advocacy of interested parties.[6]

In sum, ADTRAN urges the Commission to initiate a comprehensive review of the necessary regulatory changes in light of the evolution of the network, as suggested by AT&T and

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[5] Presumably there are better ways of fostering competition than requiring incumbent carriers to maintain duplicative networks when it is highly inefficient to do so.

[6] *Cf.*, *Memorandum for the Heads of Executive Departments and Agencies*, "Principles for Regulation and Oversight of Emerging Technologies," March 11, 2011 (available at http://www.whitehouse.gov/sites/default/files/omb/inforeg/for-agencies/Principles-for-Regulation-and-Oversight-of-Emerging-Technologies-new.pdf):

> Decisions should be based on the best reasonably obtainable scientific, technical, economic, and other information, within the boundaries of the authorities and mandates of each agency.

NTCA. Simply sticking with Twentieth Century regulations will impede the universal deployment of the all-IP networks of the future and slow deployment of broadband, to the detriment of the public interest. For all of these reasons, ADTRAN supports the Petitions for Rulemaking filed by AT&T and NTCA, and urges the Commission to institute a rulemaking expeditiously.

Respectfully submitted,

ADTRAN, Inc.

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